



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

October 8, 2003

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: National Remedy Review Board Recommendations for the Little Mississinewa River Superfund Site

FROM: JoAnn Griffith, Chair.
National Remedy Review Board

A handwritten signature in black ink, appearing to read "JoAnn Griffith", is placed over the name in the "FROM" field.

TO: William E. Muno, Director
Superfund Division
EPA Region 5

Purpose

The National Remedy Review Board (NRRB) has completed its review of the proposed cleanup action for the Little Mississinewa Superfund Site in Indiana. This memorandum documents the NRRB's advisory recommendations.

Context for NRRB Review

The Administrator announced the NRRB as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective decisions. The NRRB furthers these goals by providing a cross-regional, management-level, "real time" review of high cost proposed response actions prior to their being issued for public comment. The board reviews all proposed cleanup actions that exceed its cost-based review criteria.

The NRRB evaluates the proposed actions for consistency with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and relevant Superfund policy and guidance. It focuses on the nature and complexity of the site; health and environmental risks; the range of alternatives that address site risks; the quality and reasonableness of the cost estimates

Deliberative - Do Not Quote Or Cite - Deliberative

for alternatives; regional, state/tribal, and other stakeholder opinions on the proposed actions, and any other relevant factors.

Generally, the NRRB makes advisory recommendations to the appropriate regional decision maker. The region will then include these recommendations in the administrative record for the site, typically before it issues the proposed cleanup plan for public comment. While the region is expected to give the board's recommendations substantial weight, other important factors, such as subsequent public comment or technical analyses of response options, may influence the final regional decision. The board expects the regional decision maker to respond in writing to its recommendations within a reasonable period of time, noting in particular how the recommendations influenced the proposed cleanup decision, including any effect on the estimated cost of the action. It is important to remember that the NRRB does not change the Agency's current delegations or alter in any way the public's role in site decisions.

Overview of the Proposed Action

The Little Mississinewa River Site is located in Union City, Indiana. It comprises approximately seven miles of the Little Mississinewa River and its associated flood plain, from the bridge at Division Street in Union City to its confluence with the Mississinewa River. Polychlorinated biphenyl (PCB) contamination in river sediments constitutes the greatest risk to wildlife and human health at this site. A fish advisory for the Little Mississinewa River has been in effect for over ten years due to high levels of PCBs in fish tissues. The proposed cleanup plan includes excavating approximately 3 miles of river sediment, along with monitored natural recovery for river sediments at depth and farther downstream where there are lower PCB concentrations in the surface sediment. In the flood plains, the proposed cleanup plan includes excavating PCB-contaminated soils where concentrations exceed a 2 ppm weighted average in residential areas, and a 10 ppm not-to-exceed level in recreational areas. Dredged sediments and flood plain soil would be land disposed locally. Total costs for the recommended alternative are estimated at \$32,000,000 based on the draft Feasibility Study.

NRRB Advisory Recommendations

The NRRB reviewed the informational package for this proposal and discussed related issues with EPA Region 5 representatives Brad Bradley, James Chapman, and Larry Schmitt, on August 27, 2003. Based on this review and discussion, the NRRB offers the following comments.

- The board found the region's descriptions of Remedial Action Levels (RALs) as they relate to surface weighted average concentration (SWAC) to be confusing. The remedy decision documents and other information in the Administrative Record should clearly define the concepts of RAL and SWAC. For example, the region should explain the way in which sediments greater than 4 mg/kg will be removed to produce a SWAC of 1 ppm over a one mile foraging reach.

Deliberative - Do Not Quote Or Cite - Deliberative

- The region indicated that it calculated risks for recreational flood plain soils based on PCB concentrations. However, the risk reduction of additional PCB mass removal in the recreational flood plains was not clearly defined. The region should consider estimating the mass of PCBs present and the mass of PCBs removed under various alternatives to describe the reduction in risk. This calculation may facilitate distinctions between alternatives, e.g., between 4a and 4c.
- The need for action in recreational-use flood plains is driven by ecological risk that was not clearly explained in the board's review package, although the region did provide additional explanation during the meeting. The region should assure that ecological risks are clearly explained in the decision documents and Administrative Record. The board also recommends that the region define the term "recreational use" in the context of this site. For both residential and recreational-use flood plain areas, the region should include in the decision document an explanation of what areas are or are not available for unlimited human use, and where use is limited, include appropriate institutional controls.
- The information presented to the board did not include the region's conceptual site model (CSM) or specify remedial action objectives. Given the number of risk pathways at this site, the region's CSM would have made it easier to understand the site-wide risks and how the alternatives address those risks. The board recommends that the region include a discussion of its CSM in decision documents to better communicate the risk pathways and proposed remedies.
- As presented to the Board, risk in the residential flood plain appears to be within EPA's risk range for cancer and just exceeds a Hazard Index of 1.0 for non-cancer risk, yet PCB levels in some areas are elevated. The Board recommends that the decision documents better describe potential risks associated with higher concentrations in some exposure areas. For example, some exposure areas appear to have PCB concentrations in the hundreds of ppm, which may present greater risks in some areas than those portrayed in the review package.
- The region did not quantify the results that accrue from removing channel sediments at depth. The board recommends that the region perform a mass calculation to determine the volume of sediments removed and remaining at the three "not to exceed" levels in Alternative 4 (i.e., 5 ppm, 10 ppm, 20 ppm). This analysis may help illustrate the relative costs of the various cleanup criteria.
- The package provided little information on the affects that cleanup would have on existing habitat (e.g., vegetation and the stream channel). The board recommends that the region ensure that impacts from cleanup activities be kept to a minimum and/or ensure that actions are taken to return the stream channel to its present condition to the extent practicable. The region should clearly describe these activities in the decision documents and include associated monitoring and maintenance activities in the cost estimates.

Deliberative - Do Not Quote Or Cite - Deliberative

- Based on the information provided, the board noted that the Little Mississinewa River may be contaminated by both point and non-point discharges in addition to the PCB contamination. In order to ensure that the ecological benefits contemplated for the PCB cleanup are not compromised by other discharges, the board recommends that the region coordinate with other EPA and state programs to determine whether the appropriate water quality standards are in place, whether the river has been included on the Indiana 303(d) list, and whether a total maximum daily load has been or needs to be developed for the river. The region did not present the State of Indiana water quality classification or standards for this segment of the river. The board recommends that the region identify the appropriate water quality classification or standards, and establish cleanup goals that are consistent with them.

The NRRB appreciates the region's efforts in working together with the potentially responsible parties, state, and community groups at this site. We encourage Region 5 management and staff to work with their regional NRRB representative and the Region 5/7 Center in the Office of Site Remediation and Technology Innovation to discuss any appropriate followup action.

Thank you for your support and the support of your managers and staff in preparing for this review. Please call me at 703-603-8774 should you have any questions.

cc: M. L. Horinko (OSWER)
B. Breen (OSWER)
J. Denit (OSWER)
M. Cook (OSRTI)
E. Davies (OSRTI)
E. Southerland (OSRTI)
J. Woolford (FFRRO)
OERR Regional Center Directors
NRRB members

Deliberative - Do Not Quote Or Cite - Deliberative